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EXAMINER

CHEN, TIANJIE

ART UNIT PAPER NUMBER

2652

DATE MAILED: 01/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/751,669

Applicant(s)

KOESTER ET AL.

Examiner

Tianjie Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 13 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13 and 17-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

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## ***Final Rejection***

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in

(1) an application for patent, published under 122(b), by another filed in the United States before the invention by the applicant for patent or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent,

except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language; or”

1. Claim 13 is rejected under 35 U.S.C. 102(e) as being anticipated by Prater et al (US 6,151,198).

With regard to claim 13, Prater et al shows an actuator 11 (Fig, 4) to be used in a disc drive, with machined external peripheral surface extending along an entire periphery of the actuator and including a desired profile dimension entirely defined by the machined external peripheral surface (Column 3, 3, lines 65-67).

A "product by process" claim is directed to the product per se, no matter how actually made, see *In re Hirao*, 190 USPQ 15 at 17 (footnote 3 CCPC, 5/27/76); *In re Brown*, 173 USPQ 685 (CCPA 5/18/72); *In re Luck*, 177 USPQ 523 (CCPA, 4/26/73); *In re Fessmann*, 180 USPQ 324 (CCPA, 1/10/74); *In re Thorpe*, 227 USPQ 964 (CAFC, 11/21/85). The patentability of the final product in a "product by process" claim must be determined by the product itself and not the actual process and an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. In claim 13, the limitation "machined" is a

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"process" limitation. No weight in determining patentability will be given to this limitation.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prater et al in view of Brar et al (US 5,156,919).

Prater et al shows an actuator as described above, wherein the external peripheral surface is machined, but Prater et al is silent on the tolerance of the dimension of the surface.

Bar et al shows an actuator with a carriage, which is machined to a tolerance of about 0.003 inches (Column 5, lines 59-60).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to set the tolerance to 0.003 inches as taught by Brar et al. the rationale is as follows: in machining, a tolerance is inherent, but Prater et al does not specify it. One of ordinary skill, in the art would have been searching for the tolerance. Brar et al shows a carriage of an actuator having a tolerance of 0.003 inches, which is less than 0.005 inches. One of ordinary skill in the art would have been motivated to set the tolerance in Prater et al's device to 0.003 inches as taught by Brar et al. In such constructed device, the tolerance is less than 0.005 inches.

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3. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prater et al in view of Brar et al and Nikolovski (US 6,269,700).

With regard to claims 19 and 21, Prater et al shows an actuator to be used in a disc drive inheriting a disc rotatable about a center axis including: an actuator means 11 supporting and actuating an inherent transducer relative to a disc and having a peripheral surface with a desired profile dimension within an inherent tolerance (Column 3, lines 65-67).

Prater et al is silent on the tolerance of the dimension of the surface.

Brar et al shows an actuator with a carriage, which is machined to a tolerance of about 0.003 inches (Column 5, lines 59-60).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to set the tolerance to 0.003 inches as taught by Brar et al for the reasons as described above.

Prater et al also does not show that the profile dimension with a tolerance is defined for limiting variation in resonance characteristics of the actuator means.

Nikolovski teaches that for a mechanical element as all other physical parameters are fixed, the resonance frequencies are determined by the dimension of the element (Column 5, lines 40-42).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to find that the profile dimension, with a tolerance defined for limiting variation in resonance characteristics of the actuator means. The rationale is as follows: Nikolovski teaches that for a mechanical element as all other physical parameters are fixed, the resonance frequency, which is the main resonance characteristic, is determined by the dimension of the element; therefore, an element

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having a profile dimension  $D$  would have a corresponding resonance frequency  $F_o(D)$ . And as a industrial product, manufacturer has always set a tolerance  $\pm d$  for the profile dimension  $D$  of the element; this leads to an upper frequency  $F_+(D+d)$  and a lower frequency  $F_-(D-d)$ ; then the variation of the resonance frequency would be:

$$\Delta F = F_+(D+d) - F_-(D-d),$$

which is defined by the profile dimension tolerance  $\pm d$ . One of ordinary skill in the art would have been motivated by Nikolovski's teaching to find that the profile dimension with a tolerance always limits the variation in resonance characteristics of the actuator means.

Claim 19 is a "product by process" claim. As stated above, no weight in determining the patentability will be given to the process related limitation "which is machined to" in this claim.

With regard to claim 20, Prater et al further shows that the machined external peripheral surface extends along an entire periphery of the actuator means 11 such that the desired profile dimension is defined entirely by the machined peripheral surface.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 13 and 17-19 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is (703) 305-7499. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on (703) 305-9687. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

TC  
December 30, 2002

  
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TECHNOLOGY CENTER 2600  
1/12/03